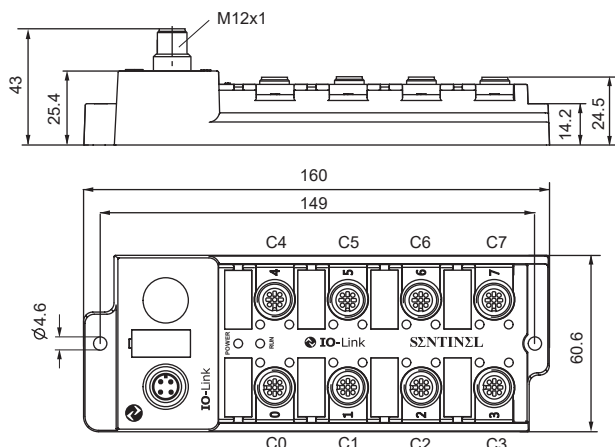


I/O Hub for Connecting Digital Signals to IO-Link Master

SIOL-M12-16DIP (PNP)

16 Universal Digital Inputs

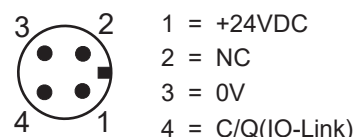
SIOL-M12-16DIN (NPN)



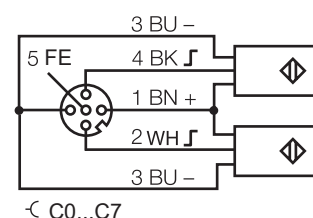
- IO-Link remote I/O device
- 16 Digital inputs Channels, M12, 5-pin
- IO-Link Protocol 1.1
- IO-Link class A, M12, A-code
- Impact and vibration resistance
- Fully potted module electronics
- Copper-plated nickel connector
- Protection classes IP67

Modle	SIOL-M12-16DIP	SIOL-M12-16DIN
Supply voltage	24VDC ± 10%	
Operating current	< 100mA	
Maximum Supply current	> 1.6A	
Input		
Number of channels	16	
Connectivity inputs	M12, 5-pin	
Input type	PNP or NPN (Depends on the model)	
input impedance	3K	
Input rated current	7mA	
Input delay	3ms	
Switch threshold	2mA/4mA 7V/11V	
Electrical Isolation mode	Optocoupler isolation	
Sensor power supply	Maximum 150mA C0...C3 Total current max 1.2 A C4...C7 Total current max 1.2 A The total C0-C7 current is limited to the maximum current of the Master port	
IO-Link		
Vendor ID	1317 (0x0525)	
Device ID	66066(0x010212)	
Number of ports	1	
IO-Link specification	V1.1	
IO-Link port type	Class A	
Frame type	TYPE_2_2	
Transmission rate	COM2 38.4 kbit/s	
Minimum cycle time	2400us	
ISDU	Supported	
Block parameter operation	Not support	
Data storage (DS)	Supported	
Data storage lock	Supported	
	Note: This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...+55 °C	

IO-Link M12 interface



Digital I/O M12 interface



LED state

Power	Green LED lights:	ON: The module power supply (Ub) is normal OFF: The module power supply is disconnected
Run	Green LED lights	ON: The IO-Link communication is normal; OFF: The IO-Link communication is not established Flash: Communication is being established, but not yet established
C0..C7	Yellow LED lights:	ON : Input active OFF: Input inactive

Process data input

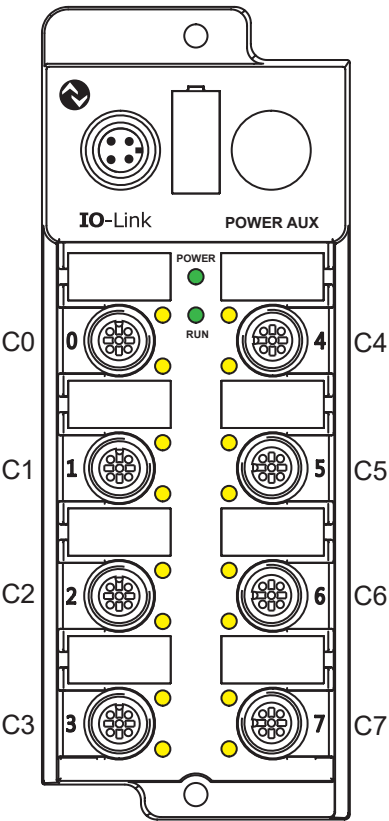
BYTE	Bit offset							
	7	6	5	4	3	2	1	0
0	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
1	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4

Note:The C * P * represents the *th pin of the C * port; for example: The C2P4 represents pin 4 of the C2 port;

Direct Parameter

Direct parameters are used to identify the device . Direct parameters are operated by index 0 .
The Subindex 0 represents operating the entire index; Subindex 1represents address 0;
Subindex 16 represents address 0x0F.

Index	Address	Parameter name	Length	Authority	Description
0	0x07 7	Vendor ID(High)	1Byte	Read	0x05 5
0	0x08 8	Vendor ID(low)	1Byte	Read	0x25 37
0	0x09 9	Device ID(High)	1Byte	Read	0x01 1
0	0x0A 10	Device ID(median)	1Byte	Read	0x01 2
0	0x0B 11	Device ID(low)	1Byte	Read	0x10 18



Parameter data / Request data/ISDU indexed service data unit

Index	Subindex	Parameter name	Length	Authority	Description
0x02 2	0	System command	1Byte	Write	0x80 128 Device reset 0x82 130 Restore factory settings
0x10 16	0	Manufacturer name	8Byte	Read	Sentinel
0x11 17	0	Manufacturer description	41Byte	Read	Sentinel Industrial Ethernet manufacturer
0x12 18	0	Device name	14Byte	Read	SIOL-M12-16DI
0x13 19	0	Device ID	7Byte	Read	6606601
0x14 20	0	Device description	29Byte	Read	I/O Module 16 digital input
0x15 21	0	Serial-Number	9Byte	Read	660660101
0x16 22	0	Hardware version	8Byte	Read	HW-V0.01
0x17 23	0	Software release	8Byte	Read	FW-V0.01
0x18 24	0	ApplicationSpecificTag	maximum 32Byte	Read Write	This item is defined in the IODD file, Included in the DataStorage (DS)
0x19 25	0	Function Tag	maximum 32Byte	Read Write	This item is not defined in the IODD file, It can be set directly through Index.
0x1A 26	0	Local Tag	maximum 32Byte	Read Write	This item is not defined in the IODD file, It can be set directly through Index.
0x24 36	0	Device state	1Byte	Read	0: The equipment is operating normally; 1: Need to maintain; 2: Running incorrect environment or parameters; 3: Device abeyance; 4: Device failed to run;